

DENVER PC BOARDWATCH

NEWSLETTER FOR DENVER AREA ELECTRONIC BULLETIN BOARD SYSTEMS

Editor: Jack Rickard

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BITS

OPUS BBS SOFTWARE: The Shanti Project of San Francisco released version 1.00 of the popular OPUS electronic bulletin board software for the IBM PC. Within a week, they followed up with a version 1.01 release. Many local boards in the Denver area had been operating with the 0.00 beta test version of this software authored by Wynn Wagner III. The new version provides full support of Fidonet mail and Echomail used by members of the International Fido Net Association. The new version also allows users to upload previously composed messages using the XModem file transfer protocol and supports the ZModem file transfer protocol for normal file transfers. David Finster is the sysop of a support board titled OPUSinfo Here at

(214)991-3381. For those interested in starting their own BBS, the package is available for download locally from The Entertainment Line Fido 104/36 at (303)969-9510. The Shanti Project, 525 Howard, San Francisco, CA 94104.

PC-DOS 3.3 PROBLEMS: IBM confirms compatibility problems between recently released PC-DOS 3.3 and numerous third-party hard disk drive systems. The difficulty centers around multisector and multitrack read operations used by version 3.3. The IBM ROM BIOS (Basic Input/Output System) has always included provisions for multisector/multitrack read

operations. Up to this point, DOS never utilized the feature.

As a result, most third-party disk manufacturers omitted the necessary algorithms from the ROM BIOS included on their hard disk controller cards. Bottom line? PC-DOS 3.3 is calling for functions these cards never heard of.

Paul Mace, author of the popular Mace Utilities, is currently working on a software patch for the problem. It will be included in Mace Utilities version 4.10 scheduled for shipment around the first of August. Note that the ability to perform multitrack and multisector read operations is an advantage that noticeably improves drive performance. And, PC-DOS 3.3 works fine with IBM ROM BIOS and disk drives.

COMPUTER SECURITY ACT 1987: HR 145, the Computer Security Act of 1987, passed the US House of Representatives on June 22 by unanimous vote. The on-line service industry is delighted with the bill that makes it clear the government has no authority to restrict or monitor unclassified private sector information. Further, responsibility for government computer security would pass from the hands of the DOD National Security Agency to the civilian jurisdiction of the National Bureau of Standards. NBS would develop standards to ensure security and privacy of sensitive data.

MOTOROLA 68030 CHIP: Full production of Motorola's latest 32-bit microprocessor chip is scheduled for the fourth quarter of this year in both 16.67 MHz and 20 MHz versions. Motorola claims the chip approaches 8 Million Instructions Per Second (MIPS) - nearly twice Intel's claims for the 16 MHz 80386 chip. Motorola's microprocessor chips are currently used by Apple computer in its Macintosh line while IBM and compatibles use the Intel family. The war goes on - but in this case, the civilians make out.

AUTOCAD 2.6: Autodesk Inc. has released the latest version of its popular computer-aided design (CAD) drafting package. The new version brings enhanced 3D features, improved transparent, pan, and zoom commands, and a more powerful dimensioning capability. Autocad is widely recognized as the leader among PC based CAD software. At \$2850 for this latest version, we sincerely hope so. Autodesk Inc., 2320 Marinship Way, Sausalito, CA 94965; (415)331-8093.

MAC COMM PROGRAM: Software Ventures Corp. has upgraded its Microphone telecommunications program for the Macintosh to fix a number of bugs surfacing in version 1.0. The new version 1.1 also adds VT-100 emulation and support for the MacBinary communications standard proposed by Apple Computer. The release is interim however with a more extensive upgrade to version 2.0 due by the end of August.

TINY MODEM: Novation Incorporated has introduced a 1200 bps modem roughly the size of an audio cassette tape. The Parrot 1200 weighs only 3 oz and does not require batteries or ac connection. Power is obtained

from the host computer's RS-232 port. The new modem features a \$119 list price.

E-MAIL BRIDGE: The current chaotic offering of electronic mail systems provide all the speed, convenience, reliability, etc, you could ever want. And they all suffer from one nearly fatal flaw. Whoever you might want to send an electronic message to invariably uses a different service. The system lacks the necessary universal nature of telephone or postal communications. Finally, some relief appears to be in the offing. DA Systems Inc. has introduced a new mail service titled DASNET. The service itself is no better or worse than any other, but it does offer an E-Mail bridge option for \$4.50 monthly allowing messages to be sent to/from 18 competing services. And you can subscribe to the bridge from any of the supported mail services as well. The linked services include: Arpanet, AT&T Mail, Bitnet, DCMETA, Dialcom, EIES, MCI Mail, NWI, Peacenet/Econet, Portal Communications, The Source, Telex, TWICS, UNISON, UUCP, The Well, and Western Union EASYLINK. DA Systems Inc., 1503 Campbell Ave., Campbell CA 95008; (408)559-7434.

BORLAND ON THE MOVE: In a deal valued at over 30 million dollars, Borland International acquired ANSA Corporation, publisher of the Paradox Database program. The move gives Borland an established corporate sales force and an entry into the high level database market dominated by Ashton-Tate.

MODEM BARGAIN OF THE MONTH: Comb Direct Marketing Corp. sells almost anything by mail. This month they offer the Kyocera

model KM1200S for the noteworthy price of \$79 plus \$4.50 shipping and handling. For the \$83.50 total they provide a 300/1200 bps, autodial/redial, autoanswer, external modem with a 2 year limited factory warranty (whatever that means). The modem is advertised as a manufacturers closeout. No mention is made of Hayes command set compatibility. Comb Direct Marketing Corp., 1405 Xenium Lane, Minneapolis, MN 55441-4494; (800)328-0609.

XENIX FOR 80386 MACHINES:

Microsoft Corp began shipments of Xenix System V/386 on July 16. The company had encountered difficulties in optimizing code for the 80386 microprocessor. The multiuser, multitasking operating system is object code compatible with the earlier 80286 version of the operating system. This means that programs developed on the 80286 system will run on the 80386 version without recompiling. Microsoft is also rumored to be working with AT&T on a merged version of Xenix and AT&T's Unix for the 80386. This combined operating system would allow either Unix or Xenix programs to run without changes. The new version won't be available till mid-1988. Microsoft Corp., 16011 NE 36th Way, PO Box 97017, Redmond, WA 98073; (206)882-8080.

LOCAL ACCESS

BOULDER MAC MANIACS: One of the earliest local BBS to support the Macintosh computer was BOULDER MAC MANIACS at (303)666-7543. Sysop Ed Fenner recently moved to a new address. Although the board was down a remarkably short time, the telephone number changed to (303)530-9544. If you own a Macintosh or have been curious about them, give the new number a call. Tell Ed that

Denver PC Boardwatch has heard of MACs after all.....and we understand they're very BIG with the lunch crowd.

PRI.COM: Publishing Resources Inc. of Boulder operates a Macintosh-based BBS titled PRI.com at (303)442-2011. The board runs on a Macintosh with some fairly clumsy but visually attractive software titled Red Ryder Host. In spite of several dropped carrier incidents, we found the subject of the board quite interesting. Publishing Resources offers page printing services using either the Apple Laserwriter printer rendering 300 dot-per-inch (dpi) resolution or the Linotronic L100 Laser Imagesetter sporting 1270 dpi quality. The services are fairly reasonably priced starting at about \$2 per page (first page) for Laserwriter output and about \$8 per page for Linotronic output, and they don't seem to mind handling small quantity orders. Text can be uploaded to the board and the services charged to your credit card. Sysop Craig Danuloff says they can do layout on Aldus Pagemaker for Macintosh and arrange for quantity printing as well. However, they do need to convert PC files to Macintosh format to run their machines and they want you to pay for it - at \$27 hourly. Hmmmm..... Discounts are provided for members of the Desktop Publishing Association (DPA). Special files and message areas are provided for DPA members and you can sign up on-line. In spite of the generic sounding club name, DPA appears to be solely a marketing device for Publishing Resources Inc. The DPA membership manual is simply a guide to Publishing Resources' services and the membership fee is a ridiculously high \$45. Although there is a

definite need for this type of service, the relationship most writers need to develop with printing services must be a close and trusting one. Right now we're feeling a bit bitten in the saddle area. Tread carefully.

APPARAT INC.: Apparat Inc. is a local vendor of PC compatible equipment. They also support a BBS titled APPARAT INC at (303)790-7947. Of course, the board promotes special sales etc. at the computer store. But it also provides a somewhat unique feature to the community - NFL Football schedules. The board also supports an NFL handicapping software program titled NFL Predictor and weekly statistical data for all players/teams. If you're a fan of the little obloid game, this material is quite interesting. Further, the board provides a fairly complete listing of the area computer clubs in their editorial section.

CHANGES: Apple Pi Board served as a focus for the Apple Users Group. It recently moved from (303)422-3716 to (303)427-7114. The board has changed names as well to Apple Pi A La Modem. The Crossroads BBS has had a telephone number change from (303)989-8397 to (303)499-0457. The Hollows BBS was down last month but rejoins us at (303)428-0372. The Colorado Sno-Bank at (303)671-7669 has revised title to Colorado TravelBank. The Buck Board has moved from (303)427-9539 to new quarters at (303)425-9283. And finally, the Unknown BBS at 988-8155 has chosen to remain anonymous. With the call log passing 57,000, we can understand why they would want to protect their privacy.

FIDONET: The local Fidonet 104 has welcomed yet another new

member and continues its dramatic growth curve of recent weeks. Steve Roughton of Boulder brings in node 39 with Excalibur BBS at (303)497-6673. The new board features a Camelot theme with some excellent programming aids in the download area. Rumor has it a couple more BBS may join the net this month. Most Fidonet sysops have been busily installing the new release of OPUS BBS software version 1.01.

COMPUTERLAND RBBS: Computerland of North Denver introduces a relatively new BBS in COMPUTERLAND RBBS at (303)420-0126. Julian Thomas is system operator. The new board runs on an IBM PC AT compatible computer. Its most noted feature to this point is the most complete list of Trojan Horse programs we've found. Most of the programs on the trojan horse list will destroy the file allocation table on your hard disk if you download and run them. This has one minor effect on your system - all the data and files on your hard disk are effectively sent to the same place the airline sent your luggage. It might be worthwhile to become somewhat familiar with this list.

CHARIOT BBS: Colorado Springs hosts a variety of BBS systems including THE CHARIOT at (303)632-4111. This BBS is a bit different in that it runs on a Convergent Technologies Miniframe computer using the Unix operating system. The board is actually a 10 line subscriber service requiring a \$12 monthly fee. The board provides a wealth of NAPLPS graphics information and currently holds the entire text of the FCC proposal to remove the long distance access charge exemption from packet data carriers such as Telenet.

Chariot has a free public sister board titled Old Colorado City Electronic Cottage at (303)632-3391 featuring a public policy/political discussion forum titled Roger's Bar. We'll provide more details on these boards in a future issue.

LONG DISTANCE

EBSCONET: We recently had an inquiry from a database service to add Denver PC Boardwatch to their list. The service is titled EBSCONET Online Subscription Service. They serve libraries, universities, and large corporations by providing a central contact for subscriptions to magazines, newsletters, and other periodicals. Interestingly, they have the most massive collection of such data available anywhere, listing 165,000 different periodicals. You can find magazines and newsletters devoted to almost any subject imaginable, no matter how obscure, via this database. Like many commercial databases, EBSCONET online charges seem somewhat ionospheric to earth dwellers. A \$250 signup fee and \$25 per hour generally requires a fairly serious interest in newsletters and magazines. But the service is both unique and useful. EBSCO Subscription Service, P.O. Box 1943, Birmingham, AL35201; (205)991-6600 (voice).

NORTHROP BBS: Northrop Advanced Systems Division in Pico Rivera CA is recruiting technical people for a number of DOD contracts. And, they are doing it via BBS. The CAREER ACCESS BBS at (612)941-5723 operates 24 hours at 300 or 1200 bps. The board requires entry of the password CAREER ACCESS and a carriage return. Current job openings are listed as well as

info about the company.

PC PURSUIT INFO: PC Pursuit is a service operating in conjunction with Telenet to bring long-distance bulletin board access to individuals at a reasonable price. The service charges a \$25 signup fee and a flat \$25 monthly for unlimited long distance data services between 6 PM and 7 AM and weekends. It has proven quite popular with BBS enthusiasts. They operate a free info BBS at (800)835-3001. However, most of the in-depth information about using the service, problems, tips, and script files for all popular communication programs are available on the NET-EXCHANGE RBBS-PC BBS at (703)689-3561 - Reston, VA. Sysops are Ted Holdahl and David Purks and they seem quite knowledgeable about the service, legal developments affecting it, and telecommunications in general.

SF WRITERS' NETWORK: Aspiring Science Fiction authors will appreciate the SF WRITERS' NETWORK at (919)922-3308. The board is based in North Carolina and features hints, tips, and text files by individuals trying to break into the craft. Just as interesting, the board is one of the few UNIX boards we've located. It's multitasking/multiuser on an AT&T UNIX PC with 60 Mbytes of hard disk space and 1.5 Mbytes of RAM. A special area is reserved for members of Science Fiction Writers of America (SFWA).

NEWSBASE: In San Francisco we found a BBS devoted to news in a format much like a newsletter. The NEWSBASE BBS at (415)824-8767 provides a lot of interesting data concerning telecommunications issues and FCC

legislation. Oddly, when we logged on it also featured an extensive amount of news concerning South and Central America.

SHAREWARE

CVTFON: Steve Linhart.

Dedicated BBS enthusiasts seem to delight in trying out the latest communication software. A substantial level of message traffic is devoted to debating the merits and faults of various comm packages. Some titles even rate dedicated message areas on BBS and a few are supported by national Fidonet EchoMail areas.

Almost all popular communication programs feature a dialing directory capable of listing title, phone number, and bps rate of a number of BBS - some as many as 1000 entries. And the trend is toward larger directories. Once a user has all his favorite services entered into a directory, any new communication package faces a significant hurdle to acceptance. No one likes to retype directory entries.

Hardware Co. has developed CvtFon (Convert Fone?) version 1.5 to bring an element of relief to this situation. CvtFon automatically translates directory files from one communication program format to another. Using this utility, you can translate your existing directory for use with any number of different communication programs. CvtFon translates to and from:

- Boyan
- GT Powercomm
- PC-Talk
- PibTerm
- ProComm
- QModem
- Telix
- Comma-Separated

Many newer communication programs not supported by CvtFon provide their own utility functions to convert to at least one of the existing directory file formats. Additionally, most commercial database applications such as dBase III+ and R:base System V provide for an ASCII text output with each field separated by a comma. CvtFon can translate this comma-separated format to any of the types listed above as well.

An example of how this can be used: Denver PC Boardwatch stores the master list of BBS in an R:base System V database. This database contains information on over 500 BBS - most no longer in operation. Each month we print a comma separated file to disk containing all the BBS currently classified as "up" in alphabetical order along with their telephone numbers. This disk file is converted to GT PowerComm format. GT PowerComm is used primarily because of its large dialing directory (999 entries) and its date-log capability. Using this feature, we can dial a portion of the list each day. At months' end, we have a date-log record of all BBS verified by logon. More importantly, we have a list of all those BBS no longer operating.

CvtFon addresses a very real, if somewhat specific, need. And it performs the translations quite efficiently. We do note that the interface is something less than hospitable. There are no pull-down menus or magic windows with this package. Rather, the user enters a cryptic command line instruction specifying the source file name and type and the output file name and type. The following example converts the GT Powercomm directory file titled JOE.DIR to

Telnet format with the name
JOE.FON.

CVTFON JOE.DIR = G JOE.FON = T

The command specifies the JOE.DIR input file as type G (GT Powercomm) and the JOE.FON output file as type T (Telnet). Note that the GT directory has a capacity of 999 entries while Telnet can hold but 150. CvtFon will translate the first 150 and simply truncate (drop) the remaining entries. Hardware Company, 710 Bruce Street, Ridgefield, NJ 07657. Support is provided by THE CORK BOARD BBS at (201)943-2226. CVTFON15.ARC is available for download locally from MICROLINK B at (303)972-4181.

RED.COM This utility is another gem floating around from board to board locally. Its actual name is REDIRECT but can be found as RED.COM. It originated on PC Magazines' Interactive Reader Service BBS (212)696-0360. Like many of the more successful utilities, this one does very little - and does it very well.

Since version 2.0, DOS has supported multiple subdirectories in a tree like structure. Often, its necessary to move a particular file out of one subdirectory over to another. In DOS, this is done by copying the file to the new directory using the COPY command. This results in two copies of the file - one in the original directory and one in the new subdirectory. The original is then erased using the DEL command - an arduous process just to move a file.

Numerous DOS shell programs have attempted to improve on this either by making the COPY/DEL operation more automatic or by introducing a MOVE function that basically performed the same

COPY/DEL operation.

One notable inefficiency in this process is that to move a file from one directory to another, the file is physically rewritten to a new area on the disk surface before erasing the previous area. This leads to fragmentation of disk files, wear on the disk drive and in the end analysis, constitutes a tremendous amount of wasted effort. Why? The data describing where disk files are physically located and their relationship to the directory tree is all held on a tiny area of the disk surface termed the File Allocation Table (FAT). RED.COM effectively moves a disk file from one subdirectory to another by making minor changes to the FAT rather than actually rewriting the entire file to another area of the same disk. In fact, the file itself never moves at all. It's not even read. The FAT changes are all that's needed to make the apparent move. As a result, it takes the same time to move a 450 Kbyte file as a 2 Kbyte file. File size is not a factor at all.

RED.COM operates much in the fashion of normal DOS commands. The statement
RED C:\A\JOE.TXT C:\B\JOE.TXT
will move the file JOE.TXT from subdirectory A to subdirectory B of the C drive. If the file is in the current default directory, the statement is even shorter:
RED JOE.TXT C:\B\JOE.TXT
This statement moves JOE.TXT from the current directory to the B directory on drive C.

This program is so simple and effective, we not only recommend it as required tools for you, we recommend it to Bill Gates - for future DOS versions.

Available locally from GRIZZLY KING BBS at (303)666-0824.

NEW USERS' CHECKLIST

The world of the electronic bulletin board system is expanding prolifically as more PCs wend their way into the home. Current estimates indicate over 5 million modem-equipped home units in the nation. If national figures hold true locally, the Denver area supports between 40,000 and 50,000 units. Given the high technology slant of our local economy, we suspect Denver exceeds national averages.

Many of these communications equipped PCs represent unused capability. But to an ever greater degree users are determined that their systems serve as something more than exotic typewriting equipment. Amateur bulletin board systems represent a fascinating adjunct to normal spreadsheet/word processing use for many PC owners. Yet because of the hobbyist background of these systems, the technical jargon, and the occasionally complicated procedures, these systems are often intimidating to the uninitiated. The following description provides the novice a brief introduction to some of the terms encountered.

LOGON: The act of dialing up, establishing communications, and obtaining access to an electronic bulletin board or on-line service. This requires a computer, modem, telephone lines, communication software program, and often a system access password.

VERIFICATION: The first time you log on to a host system, you will be asked for your name, address, and telephone number. The system operator will usually check the telephone directory to see if such a person exists and

may actually call you to confirm your application for system use. Subsequently you will be allowed message writing, software upload, and download privileges. Often you will notice rude and accusing statements on introductory screens demanding you use your REAL name and at times your OTHER REAL REAL NAME etc. Many system operators feel obtaining the legitimate identity of users discourages access by abusive individuals, usually termed TWITS, who delight in "crashing" or physically damaging data files and expensive hard disk drive equipment. Of course, REAL TWITS don't give REAL names and have no trouble evading most verification requirements. As a result, verification is of dubious value for such purposes. It does give the system operator some sense of security, and allows him to regulate offensive messages and the illegal distribution of copyrighted software. The equipment, software, and time belong to the operator so it's best to simply comply with info requests no matter how childish or rudely requested.

HOST SYSTEM: The system you log onto is usually referred to as the HOST and your machine is termed the USER or REMOTE.

UPLOAD: The process of transferring a complete program or data file from the user system "UP" to the host system via telephone. To upload, you the user must specify a file transfer protocol supported by both the host system software and your communication program. You must also indicate the name of the file to be transferred. This tells the communications software what file to retrieve from disk and transmit over the modem and it tells the host system software what file name to store the

received data under on the host disk drive.

DOWNLOAD: Essentially the reverse of upload. Data is transferred from the host system "DOWN" to the user system. Again you must select a mutually acceptable file transfer protocol and the name of the desired file.

FILE TRANSFER PROTOCOL: To upload or download program/text files, a method of transferring the blocks of data must be specified. Often telephone line noise causes the loss of a few bytes of data from the thousands contained in the typical file. Since almost all programs require ALL the bytes to operate, and since no one really wants "part" of a text file, provisions for error detection/correction must be made as well.

To accomplish file transfers, a variety of protocols have been developed. Error detection methods, file block size, etc. vary widely from one protocol to the next. The one thing constant is both the host and user system MUST use the SAME protocol to accomplish a file transfer.

All communications programs support at least one, and usually several, file transfer protocols. One of the earliest, and still the most widely supported protocols is termed XMODEM.

When you first select the upload or download option from the host system menu, you'll be asked to select a protocol from a submenu listing those supported such as XMODEM, YMODEM, KERMIT, SEALINK, TELINK, ASCII, ZMODEM, etc. Although the names look quite technical, they are almost all entirely arbitrary. Actually, it doesn't really matter which you select. Some protocols are faster on good telephone lines while others are a bit slower but provide better error correction.

The difference in time is usually not substantial enough to change your life one way or the other unless you are in one terrible hurry. Pick a protocol supported by your communications software.

Note that almost all PC to PC transfers can be accomplished using the almost universally supported XMODEM protocol. PC to Mainframe computer system file transfers are almost always possible using a protocol titled KERMIT.

Once the protocol is selected, the host system will ask for a file name. Enter the name of the file you wish to transfer. The host will usually then tell you to begin the file transfer. What now?

At this point your attention will shift from the host system software to your own communication program. First select the download function. For IBM compatible PC's, the PG DN key has become almost universal among communications programs for the download function with PG UP usually serving to select upload. Some programs use ALT-T (transmit or upload) and ALT-R (receive or download).

Once the download function is selected, your comm software will usually present a menu of protocols quite similar to the one you just used to select host protocol. Select the SAME PROTOCOL you selected from the host menu. The program may ask for a file name again. Enter the name you want the download stored on your disk under - usually the same as used on the host system.

Once you've told the host software what file and protocol you want, and told your own communications software what protocol and file you want, the two systems will automatically establish a link and begin transferring data. A window will usually display on screen showing

a number of things such as block transferred, number of errors, etc. These are very similar to the man behind the curtain on Wizard of Oz - pay them no mind.

ARCHIVES IBM programs typically consist of a number of files of various sizes. Some programs can reach nearly 100 files including printer drivers etc. Further, programs have grown in size along with memory capacity of the machines they run on. Currently, 1200 bps modems are the most commonly used. Under ideal conditions, these modems can transfer roughly 115-120 bytes per second, and 90-100 bytes is more common. This means that a 100 Kbyte file requires a little over 15 minutes to transfer.

To maximize ease of transfer of programs, some resourceful hobbyists developed a process called archiving. Archiving combines all the files that make up a program into one large archive file suitable for transfer under a single file name. Further, using advanced data compression techniques, the archive software "squeezes all the air" out of the files often reducing byte counts by 50% or more. A 100 Kbyte file is compressed to 47 Kbytes and the transfer time drops to around 7 minutes.

Because of the obvious advantage when transferring files, archive programs have become enormously popular with BBS enthusiasts. Almost all software you may wish to download from BBS will be stored in archive format. By common convention, archive files are noted using the file extension .ARC. If you download and attempt to run an ARC file, one of two things will happen: 1) nothing 2) your system crashes. To run archived software you must first

extract the original files from the archive (UNARC it) using an archive utility program.

Fortunately, almost all system operators make the archive utility software available for download. Two very popular utility programs used to ARC and UNARC files are ARC521.COM by System Enhancement Associates and PKX35A35.EXE by PKWare Inc. Download either of these files and run them. They will UNARC themselves to provide several utility files and documentation (.DOC) you can print out. Familiarize yourself with the documentation. Download an interesting looking file with a .ARC extension and use the utility to UNARC it.

EDITOR'S NOTES

With this issue, Denver PC Boardwatch presents 208 electronic bulletin boards/on-line services for your consideration. In spite of the summer slackening of indoor activity, we did locate some interesting new boards for the list.

Denver PC Boardwatch has, of course, been largely experimental. We've tried a number of promotional techniques and mailed out a large number of free sample copies to prospective subscribers. We continue to experiment in an attempt to find the best mix of news, tutorials, reviews, and BBS notes to serve our audience. With this, our sixth issue, we take a hard look at where we stand both financially and in the role we fill within the electronic community.

The good news is by investing a few hundred hours of diligent effort each month and paying meticulous attention to detail, we seem to have gained some measure of acceptance within

the telecomputing group as a fair, unbiased, and reliable source of largely useless if fascinating information. As an added bonus, we've brought many of you in closer contact with, and to an awareness of, each other. This trend towards community cohesiveness remains one of our major goals.

From a more practical vantage point, we do fervently hope you have been as diligent reading each and every word of Denver PC Boardwatch. Our best financial figures indicate we have been paying you to do so. While we had hoped to be able to introduce a bit "slicker" format quite soon, the current financial picture doesn't encourage it. Perhaps this will look more encouraging with the autumn season.

By far the most perplexing negative has been the response by some of the local system operators to our requests for user lists. Periodically we mail free sample copies of the newsletter to all registered users of selected boards. True - we secretly hope they will nearly faint with joy upon receiving it, instantly recognize the quality of prose, obvious effort, to say nothing of technical expertise, and immediately jump for their checkbooks to send us a significant percentage of their net worth in the form of a subscription. If not, they at least have the latest BBS list and we at least had our shot.

Unfortunately, it seems to be the sentiment among a small but influential group of operators that rather than the service to their audience we intend, this activity constitutes an "invasion" of privacy by us and a betrayal of trust on their part. Laudable as those loaded sentiments may be, a quick visual check of my own mailbox overflowing with soap and pantyhose samples and

solicitations for resort acreages renders their argument comical at best and leaning heavily toward the pathetically naive. If I had just a penny on every dollar "I MAY HAVE ALREADY WON" in this weeks mail, we could give every modem owner west of Albany a free subscription to the newsletter with each issue stamped in gold leaf rather than printed and a bottle of Bombay gin as an insert. In any event, if anyone wants to send free samples of computer related literature to my door - go for it. I'll read it or heave it as the mood strikes but I'll at least make a sincere attempt to suppress those feelings of "violation" and "betrayal".

Since user lists from active BBS systems are the only logical source of prospective subscribers for a newsletter dedicated to the subject, we find support among local sysops, with some notable and appreciated exceptions, disappointing. The newsletter will continue at a somewhat lower growth rate. You may expect to see fewer "free" sample copies floating around. And since Jim and Tammy Baker have cast a pall over appeals for donations, we intend avoiding their use. The repeated suggestion that we carry paid advertising remains impractical for several reasons, not the least of which is the temptation to mix editorial and advertising activities - we've been approached by several vendors with odious proposals already. Inevitably then, new subscribers may expect increases in subscription rates in the very near future. As always, our existing subscribers can look forward to the most timely, accurate, and hopefully useful information concerning Denver area telecomputing available anywhere at any price.

Jack Rickard - Editor

DENVER PC BOARDWATCH

LIST OF ELECTRONIC BULLETIN BOARD SYSTEMS

TITLE	TELEPHONE	BPS	HOURS	DESCRIPTION	TYPE
Aces High	329-6579	3/12	24	Programming/General Messages	Franklin
Albuquerque Starport	494-7224	3/12	24	Commodore 64 downloads	C-64
Alpha BBS/ Intercomex	367-1935	3/12/24	24	Tandy/Ham Radio/Space Topics	TRS
AmNet On-line	1-223-1297	3/12	24	Animal Rights Issues	IBM
Apparat Inc.	790-7947	3/12/24	24	IBM Fido board	IBM
Apple Pi A La Modem	427-7114	3/12	24	Apple User Group Messages/Downloads	Apple
APSNNet	693-6737	3/12	24	Aurora Public Schools Network	Apple
Aurora Net	680-9292	3/12/24	24	Protree Prime/Elite Support Board	Apple
Avant Garde	337-4069	3/12	24	Group Story "Days of the Knights"	Apple
Back Door BBS, The	690-0194	3/12/24	24	Games	Apple
Backstage BBS	690-2018	3/12/24	24	INFO NEEDED	??
Baha'i Board	449-3306	3/12/24	24	Religious/Philosophy/Baha'i faith	IBM
Bank, The	771-7531	3/12	24	Not Accepting New Accounts	Apple
Blue Planet	979-7299	3	24	Space Wars Game	Tandy2000
Boulder Fido 104/77	497-6968	3/12/24	24	Messages and Downloads	IBM
Boulder MAC Maniacs	530-9544	3/12	24	MAC Messages	Apple
Box's Cabin, The	424-9185	3/12	24	Apple/Technical Notes	Apple
Buck Board, The	425-9283	3/12	24	Veterans messages, TRS-80, Amiga	TRS
Bud's BBS	761-6807	3/12	24	Atari - 3.123 Mega - News items	Atari
C.A.R.L. Boulder/Broomfield	444-2057	3/12	24	Library Research	Tandem
C.A.R.L. Colorado Springs	1-632-2194	3/12	24	Penrose Library	??
C.A.R.L. Denver	830-1548	3/12	24	Colorado Alliance of Research Libraries	Mainframe
C.A.R.L. Denver	830-1546	3/12	24	Colorado Alliance of Research Libraries	Mainframe
C.A.R.L. Denver	830-1547	3/12	24	Colorado Alliance of Research Libraries	Mainframe
C.A.R.L. Denver	830-1165	3	24	Colorado Alliance of Research Libraries	Mainframe
C.A.R.L. Denver	830-0519	24	24	Colorado Alliance of Research Libraries	Mainframe
Cable Net Opus	595-0003	3/12	24	IBM Messages/Downloads	IBM
Career Connection/DRUG	671-0801	3 to 96	7P-7A	Job List/Resume/Denver Rainbow Users Grp	DEC100
Castle Darkhorn	220-1588	3/12	24	Role Playing Games	??
Catspaw SNOBOL4/ICON 15/22	1-539-4830	3/12/24	24	SNOBOL/ICON Programming Languages	IBM
CBA Information System	329-0159	3/12	24	Continental Basketball Association	IBM
Chariot Communications	1-632-4111	3/12	24	Subscriber Only BBS Unix System V/NALPS	IBM
Cherry Hills Village Post BBS	762-1981	3/12	24	Cherry Hills Village Elementary School	??
Christian Protocol	745-1504	3/12/24	24	Christian Messages/Bible Text	Epson
Club House, The	756-9134	3/12	24	RP Games/Golf Format/Messages	Apple
Club Micro Max Fido 104/88	832-5850	3/12	24	INFO NEEDED	IBM
Coco County Airport	343-6707	3/12	24	TRS Color Computer Support	CoCo
Colorado Commodore Club BBS	452-0544	3/12	24	Commodore Info	C-64
Colorado FireNet Fido 128/16	1-591-7415	3/12	??	Colorado Springs	??
Colorado TravelBank	671-7669	3/12/24	24	Colorado Travel, Recreation, Ski Info	IBM
Colorado University	447-2540	3/12	24	University Mainframes (Require Access)	Mainframe
Comm-Net Information Service	340-2473	3/12	24	* These Four Lines All Access the Same *	C-64
Comm-Net Information Service	366-7177	3/12	24	* C-64/C-128/Amiga Info-Dnlds-Messages *	C-64
Comm-Post, The	534-4646	3/12/24	24	Astronomy, TI-PC, Tandy 1000/2000, Jokes	IBM
Comp-U-Rado Node 1	1-593-1072	3/12/24	??	MS-DOS/CP/M	??
Comp-U-Rado Node 2	1-591-9448	3/12/24	24	MS-DOS/CP/M	??
Computer Farm	1-632-0669	3/12/24	24	IBM Hardware/Software Sales	IBM
Computer Know How	279-0224	3/12	24	Hard drive installations/technical supp	CP/M
Computer Repeats Inc.	939-8174	3/12	24	Used Atari Equipment Sales	Atari
Computerland of North Denver	420-0126	3/12	24	Computerland support BBS	IBM
Computers Unlimited	762-9122	3/12	24	Sanyo MBC-55X Support	IBM
Control Headquarters	1-472-0902	3	24	INFO NEEDED	??
Control Point Fido 104/711	526-9642	3/12/24	24	*Excellent* PC Software Download Files	IBM
Control Systems Premier	458-6248	12/24	24	IBM/Compatibles Subscription Board	IBM
Controller Board/TBBS Island	690-9423	3/12	24	Computer Supplies	TRS

DENVER PC BOARDWATCH

LIST OF ELECTRONIC BULLETIN BOARD SYSTEMS

TITLE	TELEPHONE	BPS	HOURS	DESCRIPTION	TYPE
COSUG	1-531-9674	3	24	Colorado Springs PC Users Group	IBM
Council of Whitestone	699-0326	3/12	24	D&D Role Games - Jokes	IBM
CP/M SIG INC Fido 104/372	465-1313	3/12	24	Oldest User's Group in Area - CP/M - IBM	IBM
CPU Board	1-772-7229	3/12/24	24	Downloads and Useful BBS Info Since '83	TRS
Crossroads	989-8397	3/12	24	Discussion	TRS
CS BBS Service I	1-531-6668	3/12	24	Subscriber Access Fido 128/11 Zenith	IBM
Custom HUB	1-598-4500	3/12/24	24	Colorado Springs HUB	IBM
Data Bank	494-0167	3/12/24	24	IBM Messages - Good Utilities	IBM
Day's End Fido 104/20	650-5636	3/12/24	24	Downloads, Messages, Astronomy	IBM
DBSYSTEM Beta Test BBS	893-5717	3/12	24	New BBS Software - Comm. Radio Survey	IBM
Death Star, The	781-6863	3/12	8P-6A	Fun Posting	C-64
DEKBBS	1-635-3732	3/12	24	INFO NEEDED	??
Dementia	989-8470	3/12	24	American MENSA Denver Chapter BBS	Apple
Den HUG	331-0982	3/12	24	Denver Heath/Zenith User Group	Heath
Denver Deaf-Net	989-9245	3/12	24	Hearing Impaired / Computing	Apple
Denver Metroplex Fido 104/69	455-3283	3/12/24	24	Autocad/Computer/Sexual Boards	Kaypro
Denver Mile High Mac Meet	758-9159	3 to 96	24	Macintosh Users Group	IBM
Dialamatch 118/The Brokerage	796-9721	3/12	24	Adult Matchmaking	Franklin
Dilligaf	1-593-2232	3	24	INFO NEEDED	??
Dinosaur Board	1-652-3595	3/12	24	Specializing in Outdated Computers	TRS
Discovery, The	388-5437	3/12	24	Music/General	Apple
DJ	789-0500	3	24	Galactic Conquest Game On-line	Apple
Dragon's Shadow	841-3721	3	24	Fantasy	??
Eagles Nest Fido 128/18	1-598-8413	3/12	24	Bagleyview Middle School	IBM
Education 2000 Fido 104/29	449-9807	3/12	24	Education Issues K-12	??
Electronic Gathering	1-599-5366	3/12	24	Magic	??
Electronic Locksmith RCP/M	698-1623	3/12/24	24	50M Downloads (CP/M & MS-DOS)	CP/M
Elkridge West	1-488-2671	3/12/24	24	INFO NEEDED	??
Enterprise	860-1323	3/12	24	Commodore board with 3.6 Meg	C-64
Entertainment Line Fido 104/36	969-9510	3/12	24	Movie, Video, Music Reviews/Ranking	IBM
Epoch 2000	1-531-6172	3/12	24	Astronomy	??
ETA Denver Fido 104/32	750-5042	3/12	24	ANSI, Messages, Weather Forecast, Dnlds	Tandy
Eusebia Fido 104/18	430-8376	3/12/24	24	Christian BBS - Full KJV Bible Downloads	IBM
Excalibur	1-597-0657	3	??	INFO NEEDED	??
Excalibur Fido 104/39	497-6673	3/12/24	5PM-8AM	C Program files C Echo area	IBM
Excelcier	697-1244	3/12	24	Apple/Commodore Message Areas	Apple
Experience Software	798-0792	3	24	Franklin Messages	Franklin
Fantasy Mountain	278-8369	3/12	24	Art/Downloads	CP/M
Father's Network	693-6818	3/12	10P-8A	Father's Rights in Divorce Issues	Kaypro286
Fiddler's Fido 104/606	674-1859	3/12/24	24	IBM Equestrian	IBM
Fido NBS 104/607	497-3934	3/12/24	24	National Bureau Standards - Jobs SIG	IBM
Four Wheeling BBS, The	469-4954	3/12	24	Jeeping/Camping/Outdoors	Atari
Galafrea	987-0161	3/12	24	C-64 Downloads/Messages	C-64
GateKeeper, The	755-4210	3/12	24	Gateway High School BBS	Apple
Gay Community Fido 104/19	795-1215	3/12	24	Messages/Downloads for Gays	IBM
Genesis Project	287-8267	3/12/24	24	Apple II General	Apple
GLOBAL Information	286-7914	3/12	24	Fee Subscription/Software Database	??
Greater Clifton PCBoard	1-434-6456	3/12	24	Grand Junction MUG - Ham/Packet Radio	IBM
Greeley-Com-Net	1-351-8861	3/12/24	24	Micro Store Support Board	Apple
Greenline	469-2053	3/12	24	Amiga	Amiga
Greeter Hub	1-473-3837	3/12	24	Discussions	IBM
Grizzly King	666-0824	3/12	24	Freeware/Colorado Outdoors/Programmers	IBM
Grotto, The	694-9050	3/12/24	24	Amiga, Pascal	IBM
Hack Shack	688-8406	3/12	24	Commodore	C-64
Hangmans Noose	499-4818	3/12	24	Commodore Games	C-64

DENVER PC BOARDWATCH

LIST OF ELECTRONIC BULLETIN BOARD SYSTEMS

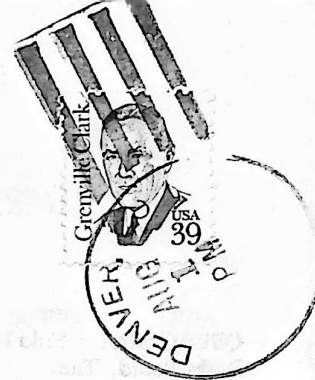
TITLE	TELEPHONE	BPS	HOURS	DESCRIPTION	TYPE
HIP Shack	1-593-0766	3/12	24	Southern CO Fido 128/19 HAM/SWL	IBM
Hobbitt Inn	237-5289	-0-	-0-	-0-	-0-
Hollows, The	428-0372	3/12	24	Apple II Messages	Apple
HP-BBS Fido 104/34	1-229-9719	3/12	24	Jokes, Amazing but True stories,	HP-Vectra
In To The Night Fido 104/31	659-1897	3/12	9P-3A	General Fido Messages/IBM Game Files	IBM
Insight	573-2071	3/12	5P-7A	Downloads, On-line Games	??
Investors BBS Service	1-481-4525	3/12	24	Stocks and Investments	IBM
King's Market Bookshop	665-6091	3/12	24	Books, Writers, Timex SIG, Zork	TRS
Kings Bench Fido 104/615	377-6725	3/12/24	24	Tandy 1000 ONLY/\$2 Registration/Messages	TANDY11
L&L Support	420-3568	3/12/24	24	Primary GBBS Pro Software Support BBS	Apple
Lakewood Department of Safety	987-7388	3/12	24	Police Sponsored - Law Enforcement Msgs	IBM
Lakewood RCPM/RBBS	985-1108	3/12	24	CP/M MS DOS Downloads	CP/M
Land of London	987-2094	3/12	24	Fantasy Runequest Games	Apple
LES-COM-NET	233-5824	3/12	24	Lesley College Communications Network	Apple
Libyan Embassy	688-1127	3/12	24	Atari Games	Atari
Magic	791-8732	3/12	24	Macintosh/Apple GS Software & Support	MAC
Manville Information Services	978-3946	3/12	24	Business Software/Macintosh	IBM
mbkSYS! Fido 104/22	443-9155	3/12	24	Writers Tools/Science Fiction	IBM
MRD - Link Fido 104/444	443-4353	3/12	24	Medical Info / TI 99/4A / MS-DOS	IBM
Metro Computer Exchange	753-6677	3/12	24	IBM - C64 Messages and Downloads	IBM
Metro Data Exchange	830-2445	3	24	Commodore 64 - Grateful Dead Schedule	C-64
Microlink B Fido 104/108	972-4181	3/12/24	24	Fido Board - Good Downloads	IBM
Mile Hi CUSS Fido 104/614	698-9924	3/12	24	CUSS Computer Use in Social Services	IBM
Mile Hi Forum	431-1404	3/12	24	Atari Support	Atari
Mile Hi Tech Fidonet 104/56	973-9338	3/12/24	24	Fido Area Coordinator - Fido News/List	IBM
Mile High Epson User Group BBS	752-2943	3/12/24	24	MHRUG Club Board	EPSON
Mile High Net	671-7308	3/12/24	24	Fido Board	IBM
Mile High Software Exchange	730-2250	3/12/24	24	Amiga/Apple Downloads - Messages	Apple
Minds of Mines (MOM) BBS	273-3989	3/12/24	24	CSM Artificial Intelligence/Geotechnical	TI
Mountain Amiga Enthusiasts	1-564-0618	3/12	24	Pueblo Amiga Computer BBS	Amiga
Musician's Den Fido 104/17	321-6857	3/12	7P-9A	Music interests - 24 hours on Sunday	IBM
Mycroft	777-8898	3/12	??	INFO NEEDED	??
National Park Sys Fido 104/608	236-9860	3/12	24	Operations Engineering WASO 610	IBM
Networks Unlimited	296-3210	3/12/24	24	Messages/Downloads/Polls	IBM
Night Shift, The	322-1544	3/12	24	Casino, Football	Apple
Odyssey III	691-0169	3/12	5P-8A	Adult(18) / Sex Oriented - Members Only	Apple
Old Colorado City Elec Cottage	1-632-3391	3/12	24	Public Access Unix Sys V/ NALPS Graphics	IBM
Old West	393-7519	3/12	24	BBS List, RP Games, High Score List, Msg	C-128
Optotech Inc	1-570-7973	12	24	400 Meg Optical Disk Drive	IBM
PACE	428-3696	3/12	24	Practical Apologetics/Christian Evangel.	??
Paradise Inn	421-1967	3	5A-9P	Commodore 64 Program Files (2.6 MBytes)	C-64
PC Computer Brokers	452-9567	3/12	24	IBM, Epson Equity, TRS-80 Club Msgs	IBM
PCjr Net Fido 104/904	789-4610	3/12/24	24	IBM PC Jr. Technical Information / Files	IBM
PCR HUB	1-635-8808	3/12	24	Online Novel - Not Bad!	IBM
Phone Connection	426-7969	3/12	nights	Commodore	C-64
Photo Tech BBS	781-1079	3/12	24	TRS 80/ HAM/Video/Camera	TRS
Pinecliffe Fido 104/28	444-7073	3/12/24	24	125 Meg - Online Order for CDB Systems	IBM
Pirates Cove	798-1207	3/12	24	Apple BBS with Pirate Theme	Apple
Playhouse	286-7399	3/12	24	Adult BBS/Jokes	Apple
PPCompas	1-591-1453	3/12	24	INFO NEEDED	??
Professional System, The	740-2223	3/12	24	Writers, Lawyers, BDP Auditors	IBM
Prom Blaster	422-3759	3	24	Apple Conversation	Apple
Property Owners Marketing Sys.	973-0100	3/12	24	Real Estate - Poorly done and hostile	IBM
PSINet	985-2634	3	24	Parapsychology/Near Death Exper./Bibliog	TRS
Publishing Resources Inc.	442-2011	3/12	24	Laser Printing/Publishing/Linotronic	-0-

DENVER PC BOARDWATCH

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TITLE	TELEPHONE	BPS	HOURS	DESCRIPTION	TYPE
QBBS Central Fido 104/24	423-3114	12	24	QBBS BBS Software Beta Test	IBM
RAM Board, The	449-8421	3/12/24	24	Chess/Tradwars Games. 50+Mbytes Dnlds.	IBM
Reggae Land	690-8144	3	10P-6A	Commodore	C-64
Regimental Headquarters	375-9556	3/12	24	Commodore - Military Theme	C-128
Roach Motel	697-1225	3 7E2	24	Commodore	C-128
Rocky Mountain 99ers	288-3692	3/12	??	RM99ers Club Board Texas Instruments 99	??
Rocky Mountain RBBS	750-2107	3/12	??	INFO NEEDED	??
Ron and Shannons AMIS	978-0298	3/12	24	Atari Support 5.4 Mega	Atari
Running Board	252-4051	3/12	24	Transportation/Atari	Atari
Sanitarium	750-0563	3/12	??	Commodore	??
Shaman Exchange	969-8585	3/12	??	Multiline System	Apple
Shamus ST	1-591-8673	3/12	24	INFO NEEDED	??
Sheridan & Associates	935-1489	3/12	24	Buy/Sell/Trade - Cheat History	Apple
Skyline Computers	457-0320	3/12	24	Atari Messages	Atari
Smart-Net	1-578-9406	3/12	24	Dungeons/Dragons Games	??
SMMUG	1-598-0111	3/12	24	Macintosh	??
Softronics	1-593-9530	3	24	Private Software Support	??
Solid Software Fido 128/15	1-591-4273	3/12/24	24	Zenith 50 Meg	IBM
Sort Support	699-8222	3/12	24	eSoft Inc. TBBS Software Support BBS	IBM
Space Network	494-8446	3/12/24	24	Space Exploration Information	IBM
Spam Mania	423-0348	3/12	??	INFO NEEDED	??
Springs Net	1-634-6077	3/12	7P-11P	INFO NEEDED	??
Stampede	799-9733	3/12/24	6P-10A	Atari/Amiga Messages/Downloads	Atari
Superguild 64	1-473-5739	3/12	24	Commodore	C-64
TAC Headquarters	322-8337	3/12	24	Commodore	C-64
Taj Mahal	451-7222	3/12/24	24	20 Mbytes Apple	Apple
TBBS Net Fido 104/23	699-9248	3/12/24	24	The Bread Board System Support	IBM
TBBS#1 of Denver	792-2032	3/12	24	Apparat Computer BBS	??
Telenet	337-6000	3/12	??	INFO NEEDED	??
Temple of Doom	771-9523	3/12	??	IFO NEEDED	??
The 8th Sea Fido 104/610	252-9235	3/12/24	24	Scuba and Rescue Messages / Wiccan	IBM
The Vine	1-596-1216	3/12	24	Religious	??
This End Up Fido 104/30	430-1585	3/12	10P-10A	New Board - dBase - Utils	IBM
Trekker World	745-9530	3	7A-10P	Star Trek Fanzine	Apple
Unknown TBBS	988-8155	3/12	24	BBS Lists, Jokes, Amigas	CP/M
Vern's Terminal Exchange	433-1150	3/12	24	Commodore Messages/Downloads/Ads	C-64
Villa TI	1-574-2567	3/12	24	Front Range 99er Computer Club	TI
Waterton Computer Club	977-7995	3/12/24	5P-7A	Martin Marietta Employees - 30M Dnlds	IBM
Werdna's Lair II	331-9276	3/12	24	Games	Apple
White Runes of Tinuviel	972-8566	3/12	24	Tolkien Subjects/Dungeons and Dragons	Atari
Wizardry World	979-1052	3/12	24	INFO NEEDED	-0-
World Peace	320-4822	3/12/24	24	Current Events, Politics	Heath
ZAP!	367-4103	3/12	??	Atari/ST/8 Bit	Atari

Denver PC Boardwatch
5970 South Vivian Street
Littleton, CO 80127



TO:



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